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(54) Title: A METHOD FOR THE PRODUCTION OF HIGHLY PURE METALLIC NANO-POWDERS AND NANO-POWDERS PRODUCED THEREBY

(57) Abstract: The present invention discloses a novel method for the production of metallic nano-powder. This cost-effective, simple process is customized for a full-scale production of metallic nano-powders containing a first metal, and comprising the following of forming an alloy comprising said first metal and at least one soluble metal; applying first thermal treatment in the manner homogenized alloy is obtained; applying a cold work to the homogenized alloy so thin strips are obtained; applying a second thermal treatment to the alloy until a phase composition of predetermined characteristics is obtained; subjecting the said alloy to a leaching agent adapted to effectively leach out the least one soluble metal; filtering and washing the powder; washing the powder; drying the powder; coating the powder with chemicals; and then de-agglomerating the coated powder. The present invention also discloses a cost-effective and highly pure metallic powder produced by the method defined above.